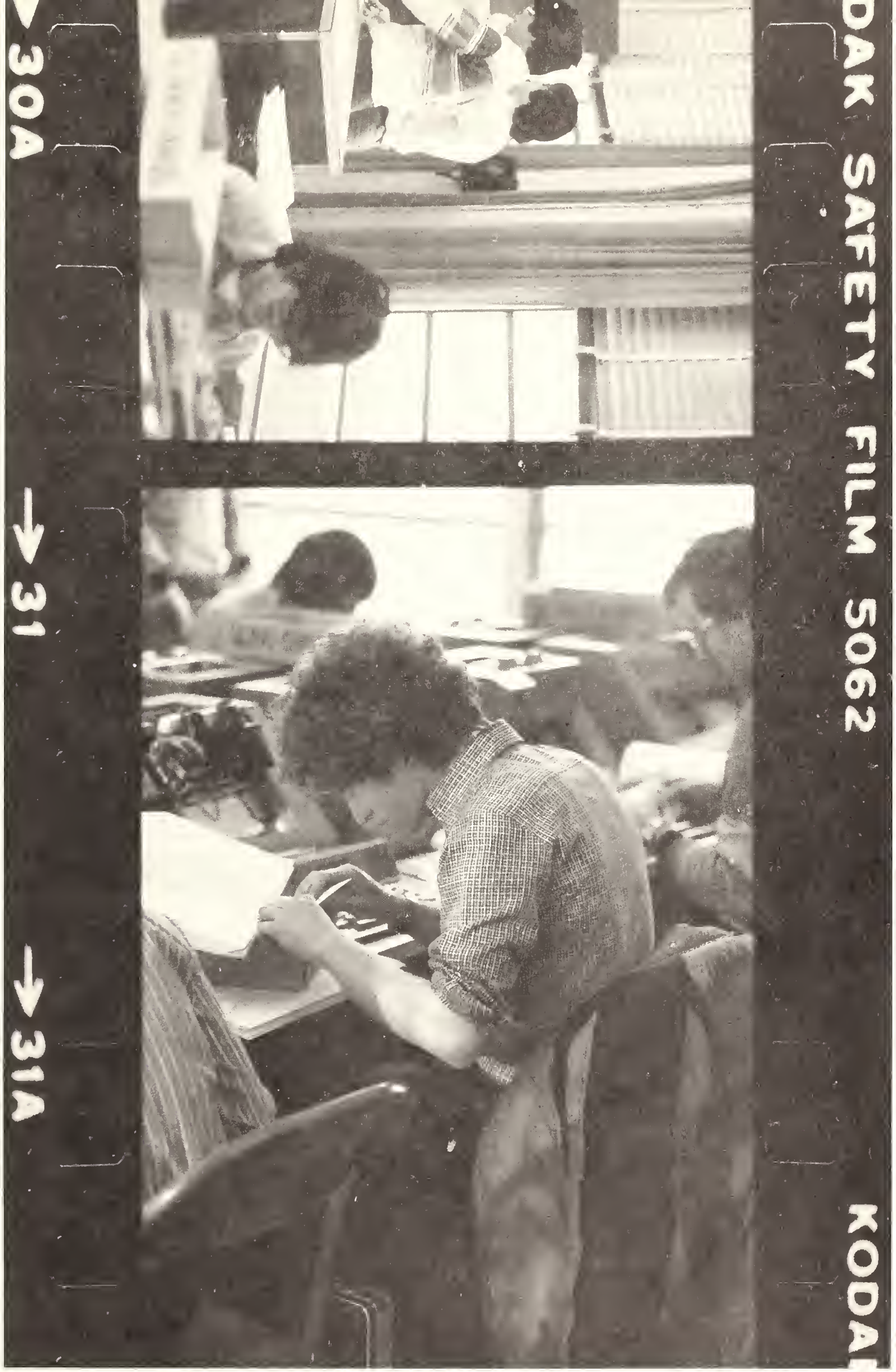
computernews



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University of Toronto
Computing Services
11 King's College Road
TORONTO Ontario
M5S 1A1

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Janet Barr, Editor

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PHYSICS UNDERGRADUATE TERMINAL

Featured on the cover of this month's issue of COMPUTERNEWS is a view of the Physics Undergraduate Terminal (PUT). PUT, the temporary HSJS terminal which will be in operation from March 5 to April 27, was described in last month's COMPUTERNEWS.

PUT is situated in Room 200 of the McLennan Labs. Computing facilities are supplied by an IBM 2501 card reader, an IBM 1403 printer and 13 keypunches. Additionally, there is a small workroom situated adjacent to the terminal in which UTCS advisors can be consulted.

In March and April, the major HSJS terminals on the St. George campus, that is, EUT and ASUT, are extremely busy as students complete their final computing assignments for the year. Although the IBM 3033 computer is capable of handling the heavy processing load, throughput is affected by an insufficient number of I/O devices, namely card readers and line printers. This last point is borne out by the existence of long queues of students around the readers and printers at EUT and ASUT. Students also have to deal with the problem of locating unused keypunches.

Several months ago, UTCS began investigating the possibility of installing additional HSJS facilities on campus to alleviate the situation described above. Since there is very little unused space at EUT and ASUT, the major problem to be resolved was finding a location which could accommodate this additional equipment. In early February, arrangements were made with the Department of Physics for the use of the Physics lounge as a site for a temporary HSJS terminal. UTCS would like to extend thanks to the Department of Physics and Professor R.L. Armstrong and Mr. J. Lewin in particular for their efforts in making this room available to us and in assisting us with several aspects involved in transforming this room from a lounge into a HSJS terminal. Without their co-operation, PUT would not be a reality today.

In the last three weeks of February, various tasks were accomplished by Physical Plant personnel, IBM personnel and by members of several UTCS groups to bring PUT into operation. Electrical outlets were installed, additional lighting was put in place, cables to the IBM 3033 computer were laid, furniture was moved, a reader, a printer, and several keypunches were installed, and part-time advising staff were hired. UTCS is aware that PUT is not a final solution to the problems associated with HSJS computing and, as such, is currently working on other concepts to replace the HSJS setup as it exists today. However, the existence of PUT is perhaps illustrative of UTCS's attempt to respond to the needs of the user community and its efforts to improve the services offered to its users.

Bob Chambers

CONSOLIDATION WRAP-UP

During the weekend of March 10-11, personnel from Bell Canada Ltd., Control Data Canada Limited, Hill Security Van Lines, IBM Canada Limited, and UTCS moved the peripheral devices from the S/370-158-3, the magnetic media library, telecommunications and voice lines, stock, furniture and miscellaneous materials from 215 Huron Street to the McLennan Physical Laboratories. The move and the subsequent re-establishment of service on the new IBM 3031 computer were quite successful. Only two problems occurred during the reconnect process, one involving a defective cable in the disk subsystem area, and another involving a failure of the line printer shortly after re-installation. The disk problem was solved within a few hours, allowing the software phase of the re-installation to continue. The software activities progressed without problems and the system became fully functional Saturday night. On Sunday, user tests of the telecommunication facilities were conducted. This proved to be quite beneficial as the level of minor line problems was somewhat higher than anticipated and UTCS personnel were able to resolve the majority of these problems before Monday.

On Monday, March 12, service was back to normal except for the fact that the line printer was still out of service. The balance of the units on the system - particularly the new components, i.e. the CPU and disk subsystem - have been highly reliable to date.

This move wraps up the present consolidation project in the McLennan Laboratories - a project which was initiated about one year ago. During this period, 8000 square feet of data centre site have been created, two new machine systems have been installed, one machine has been dismantled and moved to the new site, and two other machines have been removed from service. All disk subsystems have been upgraded to meet current technological levels. In some areas, this upgrade spanned three generations of hardware technology. Two operating system upgrades have also taken place during this time. The above project list does not include the significant efforts and moves involving our DEC services in the Sandford Fleming Building. Looking back, it certainly has been a busy year for UTCS! We have endeavoured to accomplish all these tasks with a minimum of disruption while trying to make all changes as transparent as possible to our users. We hope that these efforts have not inconvenienced anyone unduly. UTCS is confident that the benefits which will result from the consolidation will be well worth the efforts expended.

At this point, it should be mentioned that Sunday, March 11 not only marked the conclusion of the consolidation project. March 11 is also significant as it was 25 months ago to the day that the fire in the Sandford Fleming Building occurred.

cont'd...

CONSOLIDATION WRAP-UP cont'd

In conclusion, UTCS would like to once again thank the parties that have participated in this project for a job extremely well done and in particular our users for co-operating so well with us throughout the project.

Derry Cox

CLASS E NEWS

Included in the last two issues of COMPUTERNEWS were articles describing UTCS's new Class E service. To review, this service will provide very low cost execution-only computing to users with jobs requiring large amounts of CPU time. Class E will come into production by the end of April.

The following is a brief description of Class E. Class E will be provided on the IBM S/370-165-II computer. A communications link exists between this machine and the IBM 3033 computer. Class E jobs will be submitted via the 3033 computer and unit record output generated by Class E jobs will be sent back to this machine for processing. Programs run on Class E must be in load module form and a special "shared" disk pack will be available to store Class E load modules. This shared disk will be accessible to jobs running on either the 3033 or 165 computers.

On Class E, no compilers or run time libraries will be available. The latter are collections of routines that are loaded dynamically during the execution of a program. The absence of these software items means that essentially only load modules created from FORTRAN and ASSEMBLER programs will successfully execute on Class E.

Class E programs will have access to the Gould plotter. As well, with Class E the linkage-editor and some IBM utility programs will be provided. Tape mounts (1600 and 6250 bpi only) and 3330 disk mounts will be permitted. Class E jobs may use up to 500K of memory and run for up to 4 hours elapsed time.

CPU and I/O wait time will be charged for at the rate of $0.50 per minute. If the CPU and I/O wait time charge is less than $15.00, a flat charge of $15.00 will be levied for this resource. There will be no memory usage charge. Unit record processing will be charged for at standard PRIORITY 4 rates. The tape and disk mount charges will be the standard PRIORITY 6 rate.

A full description of the Class E service will be given in a one hour presentation on April 25 at 2:00 p.m. in Room 118 of the McLennan Physical Labs. Preliminary Class E documentation will be distributed at this meeting. Anyone interested in Class E is invited to attend.

Bob Chambers

SHARE 52

SHARE held its first meeting in August, 1955, at Santa Monica, California. SHARE, the first organized user group in the computer industry, was originated by a group of users of the IBM 701 in the Los Angeles area. Over the years, SHARE has become an international organization with semi-annual meetings attracting more than 3000 participants.

Membership in SHARE Inc. is available only to organizational entities operating a "SHARE Computer". The current list of "SHARE Computers" is:

IBM System 360 Model 44
IBM System 360 Model 50 or higher
IBM System 370 Model 135 or higher
IBM System 3031 or higher

SHARE's primary goal has been to foster joint research and development and provide a forum for the exchange of ideas pertaining to computer science. It provides IBM with documented user requirements for developing new products and for modifying and enhancing present software and hardware systems.

SHARE 52 was held during the week of March 18 to the 23rd in San Francisco. The conference was well attended with approximately 4000 participants. The theme of SHARE 52 was "The Application Development Process", and sessions were offered in a number of areas affected by "the application development process". A brief overview of one of the sessions offered is outlined below.

Modified Systems Life Cycle for the Application Development Process

Speaker: Dr. Ned Chapin

Dr. Chapin began his talk by stating an old management principle; that is, we should organize to fit the work or function that is being done. The people not the tools should be organized. He wanted to point out that the Life Cycle for Application Development has changed, and therefore the organization should reorganize to accommodate the changes.

Dr. Chapin described the traditional Life Cycle for Application Development and graphed the utilization of people and time resources. He went on to describe the modified Life Cycle and again graphed the utilization of resources. A modified version of these graphs appears below.

Dr. Chapin pointed out that the greatest reduction in resources came from the middle of the traditional life cycle. The reason for this reduction is that with new technogical advances more resources are devoted to the front of the life cycle. Thus more time is spent in system analysis which results in the design of less complex programs. Also with the new methodology, programs are better written and less time is spent on maintaining and modifying them.

Dr. Chapin illustrated a number of techniques being used with a chart listing both traditional and new techniques.

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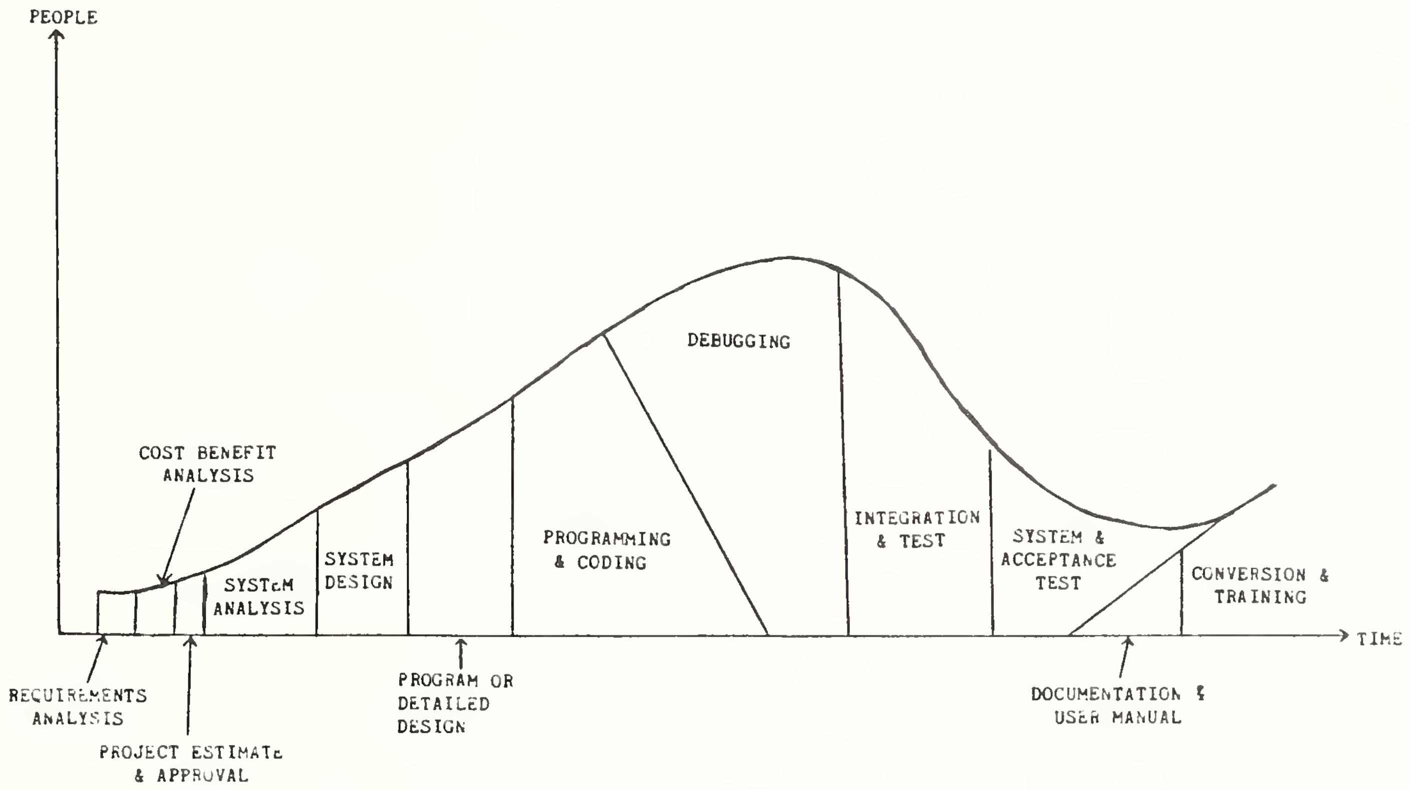
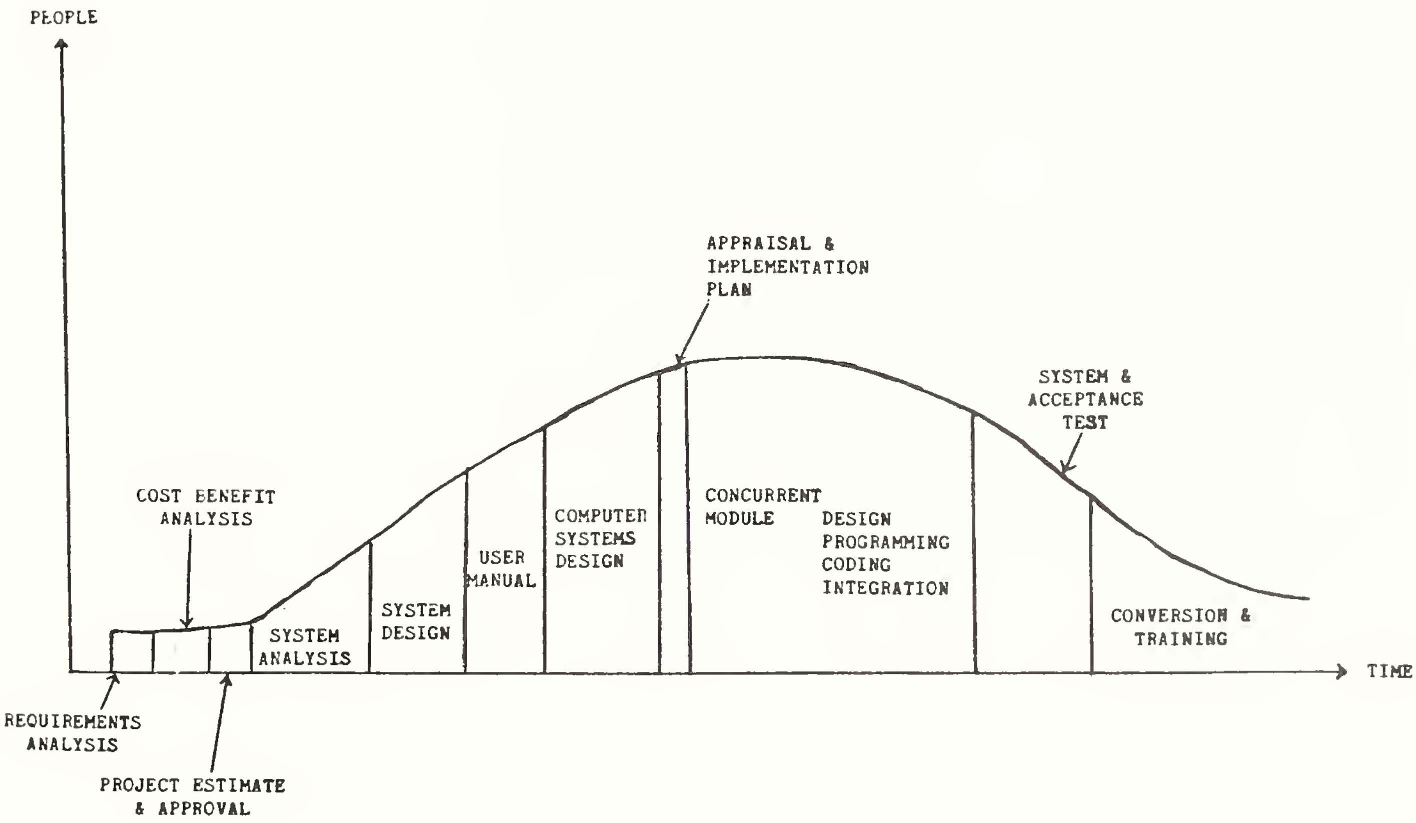
Traditional Life Cycle



Modified Life Cycle



SHARE 52 cont'd

Having made his point that the Life Cycle for Application Development has indeed been modified, Dr. Chapin proceeded to explain how to reorganize. Dr. Chapin explained that the old and new methodologies must not be mixed or the impact of the new methodology will be lost. It is not important to implement all of the new techniques. However, what is important is that once the new techniques have been chosen, they should be the only ones used. Better results are obtained by using a few new techniques and implementing them properly than by implementing all the techniques and not enforcing their use.

Dr. Chapin concluded by describing what management should do to implement and show its support for the new techniques and how to ensure that the organization will not slide back to the old methodology.

SHARE 53 will be held August 26-31, 1979, in New York City. The theme of SHARE 53 will be "Programmer Productivity".

Ralph Lombardi

DEC USER FORUM

Realizing that many DEC 1090 users were experiencing problems and that these problems could only be resolved if brought to the attention of UTCS, it was decided to hold a DEC user forum. It was felt that a forum would enable users to formally present their problems and requirements as well as provide UTCS with the opportunity to answer users' questions and inform users of current developments and future plans related to the DEC 1090 system.

The DEC user forum was held on Wednesday, March 28, and was open to all members of the DEC 1090 user community. During the first part of the forum, UTCS addressed the participating DEC users. This address consisted of three separate discussions. In the first discussion, UTCS's DEC services were examined from an operations point of view. The discussion began with a description of the history of the DECsystem-10 at UTCS. To briefly review this history, in March, 1978, UTCS began charging for jobs run on the DECsystem-1060. In June, 1978, the DEC 1060 system was upgraded to a 1090 system. From that time until the present, UTCS's energies have been diverted from the DECsystem-10 and focused on the consolidation of UTCS's IBM hardware in the McLennan Laboratories site. UTCS's energies were also employed moving the equipment associated with the Computer Research Facility (a group which has since become part of the Communications and Small Systems Group) to the site adjacent to that of the DECsystem-10 as well as with establishing a link between the new PDP 11/70 and the DEC 1090. During this period, UTCS also acquired a phototypesetting machine. In addition to the above activities, UTCS has been occupied with connecting the new phototypesetting machine to the PDP 11/70.

cont'd...

DEC USER FORUM cont'd

This presentation continued with a description of the various problems associated with the DEC 1090. From an operations point of view, the major problem related to the DEC 1090 is the physical site in which the machine is located; that is, the Sandford Fleming site is not as reliable as the new McLennan site. Further problems stemmed from the fact that, until November, 1978, the DEC 1090 was attended by only one operator. Currently, the number of operators has been increased to four. As a result, operator coverage for the DEC has been extended to 5 days, 24 hours a day.

The discussion concluded with an expression of UTCS's hope that eventually the DEC 1090 service will provide 7 day operator coverage and sufficient staff to solve users' problems as they arise.

The second subject covered in UTCS's address concerned text processing on the DEC 1090. The discussion opened with a description of the official text processing system in use at UTCS. This system consists of the SOS text editor and the RUNOFF text formatter which run on the DEC 1090. Once text has been input and edited using the SOS program, the RUNOFF program is used to arrange the text so that it is visually presentable. UTCS commented that it was pleased with the response that the SOS/RUNOFF text processing system had received.

UTCS also announced the availability of another service related to computerized text processing; that is, UTCS's new text entry service. Users attending the DEC forum were provided with a brief description of this new service.

UTCS's involvement in the typesetting of the Arts and Science, Applied Science and Engineering, Scarborough, and Erindale calendars was also discussed. In the production of the calendars, the text associated with the calendars was entered and edited using the SOS text editing program and then ITPS codes (typesetting commands) were inserted into the body of the text. The document containing the ITPS codes was then submitted to the U of T Press for typesetting.

The discussion of text processing on the DEC concluded with a description of UTCS's in-house typesetting facility. It was pointed out that the typesetting project is still in the developmental stage. However, it was mentioned that when making use of UTCS's typesetting facilities to typeset a document, the document will first be entered and edited on the DECsystem-1090 using the SOS program. Then, RUNOFF Input commands will be included in this text. The document will then be transferred via a link to the PDP 11/70, where the RUNOFF Input commands will be converted to NROFF and TROFF typesetting commands. (NROFF and TROFF are preferable to other typesetting programs as they were designed to handle the formatting of mathematical equations. The reason why NROFF and TROFF are not available on the DEC 1090 is that they were developed under the UNIX operating system and do not run under TOPS-10, the DEC operating system.) The document can then be typeset on the new phototypesetting machine which is linked to the PDP 11/70.

cont'd...

DEC USER FORUM cont'd

The final topic addressed by UTCS was UTCS's future plans for the DEC. In terms of hardware, it was pointed out that a second RH20 disk channel/controller had been installed on the morning of the user forum. Prior to March 28, a single channel was used for both disk I/O and swapping. When the system was heavily loaded, channel contention resulted in a large amount of "lost time" (refer to the article entitled DISK DRIVES FOR THE DEC 1090 in the January issue of COMPUTERNEWS). Two RH20 channels should result in significantly improved overall system performance.

A second hardware upgrade is expected to take place in late May; that is, the DECsystem-10's 4 RP04 disk drives (each having a capacity of about 160,000 blocks) will be replaced with 4 RP06 disk drives (each with a capacity of about 310,000 blocks). This upgrade will mean the doubling of the current total disk storage.

In terms of software, UTCS has recently installed a pre-release version of the new 6.03A TOPS-10 monitor together with the associated communications front end software.

Once UTCS's address was concluded, comments and suggestions were solicited from the users present. Several users commented that in many instances their problems were not being resolved and their needs were not being met. It was believed that this situation in part stemmed from the fact that a formal procedure for approaching UTCS with problems does not exist. In answer to this comment, it was pointed out that at UTCS a complete reorganization is currently taking place. The expected result of this reorganization is that the services provided by UTCS will be more user-oriented. (Details concerning the new organization of UTCS will be made available in future issues of COMPUTERNEWS.) Additionally, UTCS suggested that DEC users experiencing problems could obtain assistance from Mark Tapia, the Time-sharing Co-ordinator, or submit their comments to UTCS via the GRIPE procedure.

Another subject brought up by users concerned the communication link between the DEC 1090 and the IBM 3033 Processor. Several users mentioned that they were experiencing difficulties with the IBMLST program, the program which is used to route files to be printed to any of the remote printers connected to the IBM 3033. As well, problems had resulted when the link was used to transfer files from the DEC 1060 to the IBM 3033 Processor and vice versa. In reply to these comments, UTCS mentioned that an attempt is currently being made to resolve the problems related to the communication link.

One fact concluded from the forum was that quite a few DEC users were experiencing problems directly related to printing jobs on UTCS's high speed printers. The users present also expressed a concern that the charges which are billed to the users' Project-Programmer Number for each session do not include printing charges. The users agreed that these printing charges should be billed to the user's PPN and as such should be displayed in the DEC logoff message along with the

cont'd...

DEC USER FORUM cont'd

session charge. The participating users also objected to the fact that a DEC user receives an additional printing charge if his job is printed on a special form. (DEC users do not receive a mounting charge if the standard 8 1/2" by 15" lined paper, uppercase only form is used.) The primary objection was that DEC 1090 users are charged for the mounting of certain special forms on the ITS printer, charges which ATS users, for instance, do not incur. In response to the above comments, UTCS assured users that the problems discussed would be examined and dealt with.

A further problem observed by the users was the long print backlog on the IBM system. In reply, UTCS pointed out that the related problem of too little spool space had been solved. UTCS also pointed out that the printing load partially stems from the fact that it is the end of the academic year. A further reason for the print backlog was that a UTCS printer, normally used for printing large security jobs, was unavailable as it was required for use at the new Physics Undergraduate Terminal (PUT).

Many of the users participating in the forum objected to the fact that computer games, such as STARTREK and ADVENTURE, are available on the DEC 1090. It was felt that users playing these games were using up available DEC telephone lines. UTCS replied that computer games are primarily intended for novice users; that is, it is generally thought that these games eliminate the novice user's initial fear of being unable to understand and/or operate computer equipment.

The forum concluded with a suggestion from UTCS that the DEC 1090 users might be interested in forming a group which would meet on a regular basis to discuss common problems, requirements, etc. The users present expressed little interest in forming a group of this nature.

With respect to the success of the forum, the general concensus was that the forum was not entirely satisfactory due to the poor turn out by users. However, UTCS did feel that the forum was worthwhile in that several problems which users were commonly experiencing were brought to light.

Cathy Gillevet

NEW REGISTER AND SCRATCH COMMANDS FOR WYLBUR

On March 5th, UTCS upgraded the REG EXEC file in $WYL.LIB, and installed the complement function -- an EXEC file SCRATCH.

The new REG EXEC file performs the same function as the old REG EXEC file; that is, it creates a batch job which will register a user dataset. However, the new EXEC file provides several new features which were not available with the previous version:

1. The user now enters the dataset name using the standard WYLBUR naming conventions. This is a significant change from the old REG EXEC file (where the user entered the full OS dataset name), and brings the REG EXEC file into line with other commands in the WYLBUR system.

NEW REGISTER AND SCRATCH cont'd

Thus, user W01234 now registers a dataset named U01234.PROGRESS by giving the REG EXEC file the WYLBUR Name "PROGRESS". In addition, if the user wishes to give the full OS dataset name (to register a dataset called "USER.PROGRESS", for example) he/she should enter the full name preceded by a dollar sign ($) -- e.g. $USER.PROGRESS.

2. The new REG command does not need to clear the ACTIVE file when it begins to execute.
3. The new REG command prints a blot on which the user will enter his/her SAC password. This will improve password security.
4. The Job name of the job created by the REG command will follow the standard WYLBUR job naming conventions. Thus, the user is now able to follow the progress of the Register job with a "LOC *" command, rather than "LOC W0xxxxRR".

A sample showing the execution of the new REG EXEC file follows:

```
COMMAND? exe fro $wyl.lib#reg on catlg ole
--- THIS EXECFILE REGISTERS A CATALOGUED DATASET
ENTER WYLBUR FILENAME:  file
--- ACCESS CODE IS 1234
ENTER SAC PSWD: 8888
JOB 4754 W0123445 SUBMITTED
*** *** REGISTRATION JOB FOR U01234.FILE SUBMITTED *** ***
*** *** YOU MUST CHECK JOB OUTPUT FROM REGISTER JOB *** ***
COMMAND?
```

The new EXEC file SCRATCH scratches and removes from logfile a given OS dataset. As such, this new EXEC file should be used to delete registered WYLBUR files. It can also be used to scratch a member from a library owned by the user, although the regular WYLBUR command "Scratch" is recommended for this purpose.

The SCRATCH EXEC file asks for the WYLBUR name of the dataset which is to be scratched. It will assume that the given dataset is registered under the user's SAC, and will ask for the associated password.

A sample session, showing the use of SCRATCH to scratch the file "file" belonging to user "W01234" follows.

```
COMMAND? exe fro $wyl.lib#scratch on catlg ole
--- THIS EXECFILE SCRATCHES A DATASET
ENTER WYLBUR FILENAME:  file
-- ACCESS CODE IS 1234
ENTER SAC PSWD: 8888
JOB 4574 W0123499 SUBMITTED
*** *** SCRATCH JOB FOR U01234.FILE SUBMITTED *** ***
*** *** PLEASE CHECK OUTPUT FROM SCRATCH JOB *** ***
COMMAND?
```

Any questions or comments concerning the new EXEC files should be directed to John Bradley, UTCS, 978-3990.

John Bradley

WYLBUR NOTES

Are you tired of getting printed output that has been in the 'fetch' queue as 16 pieces with individual header and trailer pages, only to find that the one file you really want is not there? These little pieces are rather difficult to handle and seem to come out of the printer(s) in random order, and also waste a fair bit of paper. There is a better way.

An EXEC file has been added to the public library $WYL.LIB to produce output in one piece. The following is a sample WYLBUR dialogue (note that the following assumes that the user has fetched some/all files and decided he wants the printout).

cont'd...

WYLBUR NOTES cont'd

```
? exec from $wyl.lib#output clr
<jobid>: * [or w0123423]
OK TO CLEAR? ok [or yes or clr]
<destination>: selfserv [default central]
copies: [default 1]
&U01234.T23 SAVED AND CATLG'D ON USER01
OK TO PURGE *? [ok or yes to purge]
JOB 1234 W0123424 SUBMITTED
EXEC END
?
```

The output will look almost identical to a normal one piece output for the job. The block letters on the header page reflect the job whose output is being printed, not that for the job submitted to print it. In the above example, the header page would show W0123423, not W0123424, although the small print and trailer page block letters will show the latter.

Other minor differences are:

1. No HOTNEWS
2. no JES2 JOB STATISTICS
3. Spacing in the LOG, JCL, and MSG files may not be correct, although the only difference noticed to date is the printing over page perforations.
4. SYSOUT files will not be separated by page skips unless the program does a page skip ('1' in column 1) on the first line of the file. All the compilers, the linkage editor, utilites, statistical packages, etc. do this.

Some other warnings and notes:

1. If the * or *-n convention is used for the <jobid>, the user must take into account the fact that the EXEC file submits a background job.
2. Quotes, single and double (' and "), should not be used inside the programmer name.
3. The cost of the print job is given on the trailer page. Thus, to get total job cost, the user adds this to the execution cost from the MSG file; the user does not have to add 17 numbers.
4. The print job will cost a bit extra. In all examples run to date, this has always been less than $0.20 at priority 6. (The print job is submitted at the same priority as the original.)
5. The print job's LOG, JCL, and MSG files are routed to destination discard, and thus the print job may appear ON OUT QUEUE for up to half an hour.
6. Messages such as NO DATASETS AWAITING FETCH or other EXEC BREAKs are most likely due to a WYLBUR problem which sometimes does not allow a dataset to be re-fetched, once fetched. If this happens, call the Operator at 978-7393 and ask him/her to restart WYLBUR.
7. Since the entire output is fetched and saved before submitting the print job, problems could arise with large outputs.

Problems concerning this EXEC file should be directed to John Roth at 978-6878. Suggestions are also welcome.

John Roth

A REPORT FROM NMCS

The Numerical Methods Consulting Service (NMCS) has investigated the techniques used for unconstrained nonlinear optimization. As part of this investigation, NMCS has examined the subroutines in the Harwell and OPTISEP libraries which implement these techniques. Test problems were chosen from technical journals to exercise these routines. We attempted to solve each problem using 20 random starting values. Some routines were successful in finding the correct minima while others were not. This illustrates the fact that the state-of-the-art in unconstrained, nonlinear optimization is such that robust, general purpose subroutines which solve all problems do not exist and careful experimentation is often necessary to solve a given problem.

We also measured the amount of time a subroutine required to solve the problem, and the accuracy of the results. A general trend was that when higher accuracies were specified, better results were obtained with very little increase in execution time.

We have also found that some routines do not work with random starting points and we also suspect that some routines have programming errors and should not be used. The report with complete information about the test functions, the random starting points, the subroutines tested, the tables of the results with conclusions, etc. is available on request from the Computing Co-ordinator at the Physics Terminal.

Imre Farkas

A NEW ADDITION TO THE HOW TO SERIES

The newly released publication entitled HOW TO USE A CDC CARD READER, A CDC LINE PRINTER, A CDC TERMINAL STARTUP PROCEDURE is the latest addition to UTCS's HOW TO series of manuals. The purpose of UTCS's HOW TO series is to assist users in the operation of the self-service equipment at UTCS. To reduce the time and complexity involved in learning to operate the equipment, step-by-step explanations are accompanied by examples and photographs.

The new HOW TO manual describes the basic techniques required to operate the CDC self-service equipment available at the Arts and Science Terminal (located in room 2105 in the Sidney Smith Building) and the New Physics Terminal (room 1202 in the Burton Tower).

Interested users can obtain this new publication at the Information Office, Room 206, Engineering Annex.

BMDP UPGRADE

The latest version (dated November 1978) of BMDP77 was recently installed. This is mainly a maintenance release including many minor corrections, modifications, and some new features. The most important change is the transformation processor, which allows transformations of arbitrary complexity to be specified in the /TRANSF paragraph. Previously, transformations were very tedious

cont'd...

BMDP UPGRADE cont'd

with only one operator being allowed in each statement. The new IF-THEN (sorry, no ELSE) even allows multiple statements after the THEN. For example:

```
/TRANSF IF(A EQ B AND C LT D) THEN
   (C = D. E. SQRT(F)*G + H.)USE=1.)
```

A notice explaining all of the changes in the new release can be obtained by running the following job.

```
// EXEC BMDPNOTE[,FORMS=tcnn][,COPIES=n]
```

A copy of this notice can be obtained from any of UTCS's remote terminals.

John Roth

JCL MVS WARNING MESSAGE

Many MVS users may have noticed the following message in their JCL.

```
IEF686I DDNAME REFERRED TO NOT
 DEFINED IN STEP
```

This message is merely a warning that a DDNAME referral JCL statement exists in a catalogued procedure but that this referral was not used or needed in the job. Normally, the DDNAME feature can be used to optionally add an input dataset to a job step. Users who receive this message should ignore it if their job is working well.

Users with questions related to this JCL warning are asked to call Herb Kugel, 978-7286.

Herb Kugel

PERSONNEL CHANGES

UTCS welcomes three new staff members this month.

Pui-Man Lau is a new keypunch operator in the data entry section. She comes to us from Hong Kong where she received her education and gained office experience.

Ivan Prock is working as a computer operator in Operations. Prior to accepting the position with the Operations Group, Ivan worked for UTCS while studying at U of T. Ivan hopes to continue his studies on a part-time basis.

Dr. Walter Rosacha is the new supervisor of the Communications and Small Systems Group. Dr. Rosacha, while completing his doctorate in electrical engineering, worked with the Computer Systems Research Group.

Clara Pereira

RECENT ACQUISITIONS IN THE DEPARTMENT OF COMPUTER SCIENCE LIBRARY

ACM Symposium on Artificial Intelligence and Programming Languages, University of Rochester, 1977.
  Proceedings.
New York, ACM, 1977.

Advances in computers.
  v. 17 (1978)

Conway, R.W. and Gries, D.
  An introduction to programming: a structured approach using PL/1 and PL/C. 3d ed.
Cambridge, Mass., Winthrop, 1979.

cont'd...

RECENT ACQUISITIONS cont'd

IBM Symposium on Mathematical
Foundations of Computer Science, 3d,
Kansai, Japan, 1978.
  Mathematical logic & computer
  science.
Tokyo, IBM, Japan, 1978?

Jamous, Haroun and Gremion, P.
  L'ordinateur au pouvoir: essai
  sur les projets de rationalisation
  du gouvernement et des hommes.
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UTCS SYSTEMS

3033 PROCESSOR

- located in McLennan Physical Laboratories
- provides General Purpose Job Stream, High Speed Job Stream, TSO, WYLBUR
- 6 megabytes of memory
- MVS with JES2

SYSTEM/370 MODEL 165-II

- located in McLennan Physical Laboratories
- provides APL and ATS services
- 4 megabytes of memory
- OS/MVT with APL and ATS

3031 PROCESSOR

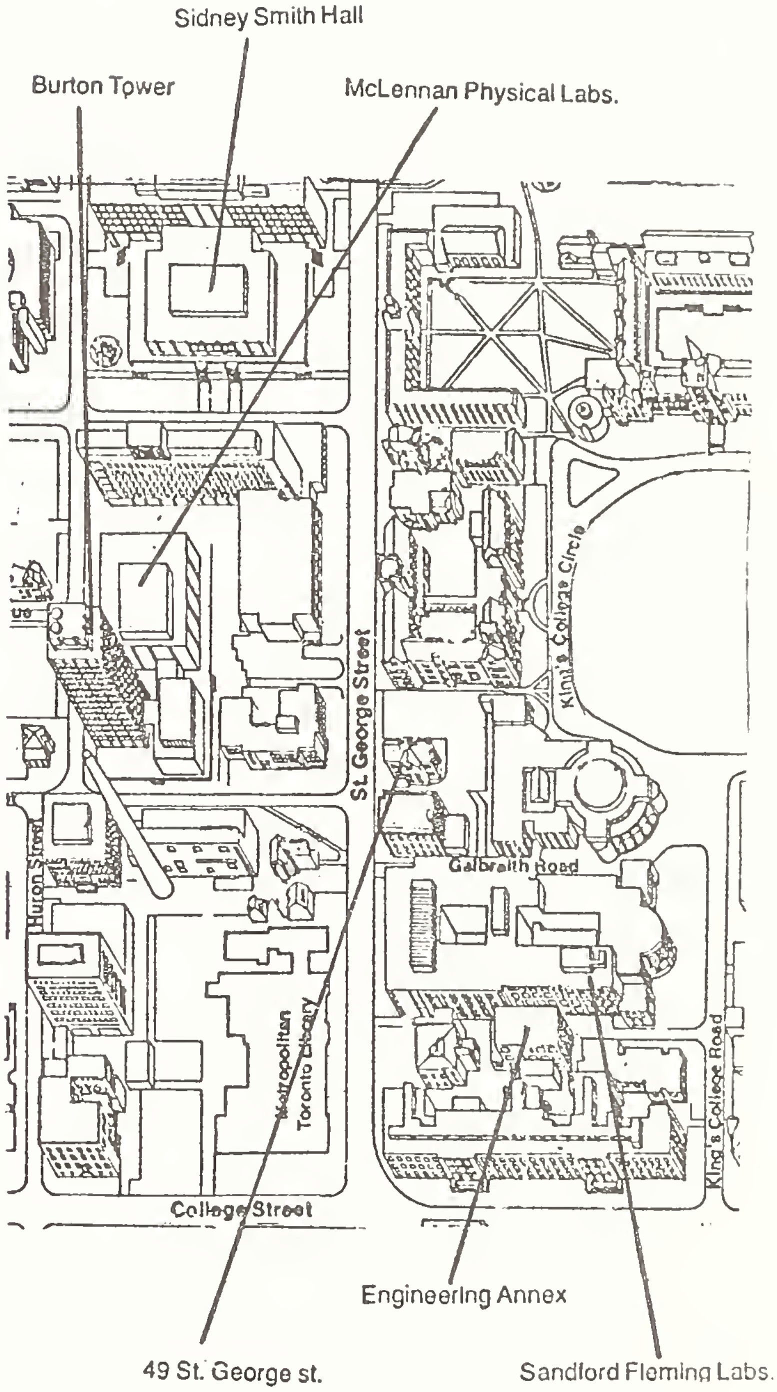
- located in McLennan Physical Laboratories
- provides administrative IMS/VS DB/DC Batch and TSO services
- 6 megabytes of memory
- MVS with JES2

DECSYSTEM 1090

- provides General Purpose Time-Sharing
- 256k - 36 bit words of memory
- TOPS10 operating system

COMMUNICATIONS & SMALL SYSTEMS

- located in SF207/SF109/112
- DEC GT44 System with PDP-11/40 CPU
- DEC GT40 System with PDP-11/05 CPU
- provides specialized graphics and interactive graphics
- provides on-line and real-time computing services, data acquisition and minicomputer services



UTCS DIRECTORY

POSITION	ROOM	CENTREX PHONE NUMBER
DIRECTOR		
Dr. Doron Cohen	ML350	8948
ASSOCIATE DIRECTOR		
Rein Mikkor	ML350	5058
ASSOCIATE DIRECTOR		
Al Heyworth	ML350	4936
MANAGER, COMMUNICATIONS AND SMALL SYSTEMS		
Eugene Siciunas	ML350	4967
MANAGER, OPERATIONS		
Derry Cox	ML350	7092
MANAGER, SYSTEMS		
Sean Keeley	ML350	3579
ASSISTANT TO THE DIRECTOR		
Suzan Fawcett	ML350	4428
INFORMATION & ACCOUNTING OFFICE		
General Inquiries	EA206	4990
Marg Doherty	EA206	8995
ACCOUNTS		
Merton Hunte	EA206	8702
Sylvia May	EA206	7148
ACCESS CODES		
Agatha Stevens	EA206	8703
INFORMATION & CUSTOMER SERVICES		
Don Gibson	EA201	5568
SUPERVISOR, PROGRAMMING SERVICES		
Helen Peacock	SG201	6877
SUPERVISOR, APPLICATIONS		
Herb Kugel	SG304	7286

SUPERVISOR, CO-ORDINATORS

Ralph Lombardi	SG305	7130

COMPUTING CO-ORDINATORS

Engineering Annex Terminal		
Jill Reece	EA103A	4357
Program Advisors	EA103	
Time-Sharing Support		
TS Advisors	SG204	6465
Mark Tapia	SG204	7109
Erindale		
Paul Shindman		828-5311
Scarborough		
Ihor Prociuk		284-3173
Arts and Science		
Sue Chong	SS2133	6509
New Physics		
Bob Chambers	NP1203B	8823

SUPERVISORS, OPERATIONS

Paul Scarborough(S/370-3033)	ML335	6220
Kam Jain (S/370-165 & DEC 1090)	ML335	7374
Dave Wong (S/370-3031)		6864

KEY:

EA = Engineering Annex
SG = 49 St. George
NP = McLennan Physical (New Physics)
SF = Sandford Fleming
SS = Sydney Smith

JOB AND SYSTEM STATUS QUERIES

SYSTEM/3330,TSO	7373
ATS/APL	6234
2741 TERMINAL MALFUNCTIONS	7107

TIME-SHARING SERVICES	DIAL-UP
APL,ATS	7200 CENTREX 7201 NON CENTREX
TSO,WYLBUR	6200 CENTREX 6201 NON CENTREX
DEC	4224 CENTREX 4244 NON CENTREX
PHONE-IN ADVISING	6465

University of Toronto
Computing Services
Toronto, Canada